Mcentee Broadcasting of Florida Inc.
WIOJ Jacksonville Beach, Florida
1010 kHz- 50/30KW-DA-2-U

ENGINEERING EXHIBIT EE

In Support of FCC Form 301 Minor Change
Application for Construction Permit
Change of Transmitter Site, Antenna System, Power

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Technical Narrative Statement

General

This Exhibit supports the attached FCC Form 301 minor change application for Mcentee Broadcasting Of Florida Inc. (hereinafter Mcentee), licensee of WIOJ. This proposal specifies a move of WIOJ's transmitter location, change antenna system, and increase of its daytime & nighttime power. This application will also serve to update all data currently on file using the post 1981 & 1992 engineering criteria for directional antenna systems as well as Day/Night interference.

WIOJ currently operates as a class D radio station at 10KW, using a 2 tower bi-directional antenna system with daytime service to its city of license, Jacksonville Beach , Florida. WIOJ also has nighttime authorization for operation at .143 KW.

Proposal

Because the current site has development on all sides, there is simply no room for a more directional antenna system to make protected (class B) nighttime operation possible. It is therefore Mcentee's proposal to move WIOJ's transmitter site to a rural, non-environmentally sensitive area in order to construct a larger, highly directional array for both daytime & nighttime operation. By doing so, Mcentee will be able to bring new AM nighttime service to its city of license and other areas as well. Answers to all applicable questions contained in FCC form 301 (section III AM Engineering) are contained in exhibit EE as described in the following sub sections.

Proposed Daytime Operation

Exhibit EE-1 shows the proposed center of array. Exhibit EE-2 is a plot of the proposed array on the property. Exhibits EE-3 & EE-A describe the proposed daytime array in operation at the requested power. Exhibits EE-4 – EE-4B show the proposed daytime operation with all relevant groundwave contours plotted using conductivities from M3. Interference contours are displayed to the 1st adjacent channel. There are no salient 2nd or 3rd adjacent channel allocations anywhere near this proposal

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. It should be noted that all supporting engineering exhibits denote the existing contours using dashed lines, and the proposed operation using solid lines. It should also be noted that all authorizations & allocations are shown using M3 as the conductivity source. Although the proposed radiation tabulations are shown equally spaced at 5° azimuths, all groundwave plots in this exhibit were made at 1° for the highest accuracy. As shown, this proposal does not create nor does it accept groundwave interference as defined by part 73 of the Commissions rules.

Nighttime Operation

Exhibits EE-5 & EE-5A describe the proposed nighttime antenna system operating at the requested power. Exhibit EE-6 comprises the detailed nighttime Root Sum Squares interference study to all pertinent Domestic, Region 2, and Non-Signatory stations in the Western Hemisphere.

The following 2 special notes apply to the Processing Engineer / Examiner reviewing Engineering Exhibit EE-6 ;

#1.) The Commissions database contains a erroneous record for non-signatory station, **CMBX – WAJAY, CU IFRB ser # 081000707**. Although shown in the Commissions database as a "proposal", this record does NOT appear in the IFL Master Register. Following recommendations from members of the Commissions International Bureau, this record was omitted from the RSS study to Region 2 and non-signatory allocations. Conversely, it was discovered that an IFL listed station exists in the same country on 1010 kHz that does NOT appear on the Commissions database, **CMDN – AUSTRALIA, CU**.

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This record was verified using our in house IFL Master Register, and then compared with the Commissions International Bureau's records. Once verified with the Commission, a record was created in our database to be included in the RSS study. The parameters listed below, are the official constants on record with the ITU and have been added to the RSS analysis.

CMDN AUSTRALIA CU 1010 KHZ - ND-1-U (User entered data)
N Lat 22 29 00 W Long 081 07 00 Dom Class 0 Region 2 Class B rms: 1013.83 mV/m
10.0000 KW CL# ( ) Last Updated by
1 Towers; Theo Pattern; 0 Augmentations; Q:****; Cutoff: Curves: R-50%**
IFRB Serial # ; Entered into list on
Coordination Status: Canada: ; Mexico: ; Region 2:
UNLISTED CUBAN STATION , TECH DATA DERIVED FROM IFL LISTING

Field	Height	Phase	Orient	Adj Orient	Space	Adj Space	Ohms	SW1	SW2	A	B	C	D
1.0000	113.0000	.0000	.0000	.0000	.0000	.0000	1.0000	0	0	.0	.0	.0	.0

#2.) Canadian Class A station CFRB, has 3 records on file with the Commission. The first, specifies 8 augmentations to its pattern. The next 2 specify a new site. One record shows no augmentations to its pattern, and the other shows 15. Again, at the direction of the Commissions International Branch, the record with no augmentations has been omitted. It is believed that the change of site facility is the current operational plant, and the 15 augmentations are its actual "proofed" parameters. To aid the processing engineer, Exhibit EE-6 denotes these 2 records as "CFRB-8" and "CFRB-15". In all cases where either of these facilities appear above the WIOJ proposal (ie: "WIOJ-PROP") in the Root Sum Square's tabulation , EE-6 shows a separate analysis using each. For records that appear below the WIOJ proposal, only the highest of the 2 CFRB records appear.

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Special engineering Exhibit EE-6A was created in order to demonstrate this proposal's compliance with 73.182 (q) (1). WIOJ currently operates during nighttime hours. Because this authorization was granted prior to the 1992 rule change (ie: "AM Improvement Factors") , interference as defined by the current rules exist to two allocations, WMOX- Meridian, Ms , and WQYK – Sefner, Fl. This proposal dramatically reduces radiation toward these two allocations, far below the minimum (10%) requirements of 73.182 (q) (1): In this exhibit, the existing facility is compared to the proposed facility in a before and after format. In ALL cases, existing interference is either dramatically reduced, or eliminated completely. Furthermore, in 2 of the 3 listed scenarios, the nighttime interference free contour of these stations (50% exclusion) has been reduced and therefore the usable nighttime service area of these stations would be increased by grant of this proposal. WIOJ's nighttime interference free contour is set primarily by WQYK, and appears on page 6 of EE6.

Exhibit EE-7 is a plot of the proposed skywave interference contours to the listed CFRB facilities. Because the proposed .025 mV skywave contour does not enter Canadian boundaries, a point-to-point "clipping study" was deemed as unnecessary. This proposal shall serve to protect CFRB in accordance with the US/Canadian Agreement. Within the Western Hemisphere, there exist several IFL listed class A stations on 1010 kHz. Although shown in the Region 2 agreement as being on the "B list", these allocations are still subject to skywave protection by their IFL listed class A status. Special Exhibit EE-7A was created in order to demonstrate the Mcentee proposals protection to the counties of origin. The .025 mV region 2 contour of the Mcentee proposal does not come anywhere near the borders of these countries.

Exhibits EE8 and EE9 display the calculated contours to WIOJ's city of license. Both modes of operation easily cover 100% of Jacksonville Beach with its respective 5mV (daytime) & 7.2 mV (nighttime interference free), contour's.

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The applicant believes its proposal will not significantly effect the environment since proposed construction does not meet any of the criteria specified in Section 1.1307 of the rules. The proposed structure's shall have a fence around the tower bases of at least 5 meters from any point. This distance easily complies within the minimum recommendations for compliance with ANSI RF radiation exposure limits contained in the Office of Engineering and Technology Bulletin 65A, for the electrical height and power level of this proposal.

The applicant agrees to reduce power or turn the transmitter off, as appropriate at any time any authorized person is working within four meters of the tower's for any purpose other than making readings or adjustments of brief duration. There are no known non-broadcast or government receiving stations in the vicinity of the proposed transmitter site that are likely to receive interference as a result of the implementation of this application. If any interference should occur, the applicant will correct the problem in accordance with current FCC rules and regulations. If any blanketing interference is reported as a result of this application, the applicant will discharge its responsibilities in correcting it in accordance with 73. 88.

The undersigned believes that this proposal is in full compliance with all applicable FCC rules and regulations in addition to all international agreements that the U.S. is a participant, and that grant of the requested construction permit shall be in the best interest of the public.

<signature>

Ralph Ray Barnes Jr.